

20. (Amended) A kit for screening compounds that modulate topoisomerase religation activity comprising:
 - (a) a substrate nucleic acid comprising a first tag,
 - (b) a religation nucleic acid comprising a second tag and a 5'-OH,
 - (c) a topoisomerase, and
 - (d) a means for measuring a covalently linked product comprising (a) and (b) in [nucleic acid religation activity of] a test mixture comprising (a), (b) and (c) in the presence or absence of a topoisomerase-modulating compound.
22. (New) A method to identify a compound that modulates topoisomerase activity comprising:
 - (a) incubating a reaction mixture comprising a substrate nucleic acid, a religation strand, a topoisomerase, and a candidate compound; and
 - (b) assaying for ligation of the substrate nucleic acid and the religation strand.
23. (New) A method to identify a compound that modulates topoisomerase activity comprising:
 - (a) incubating a reaction mixture comprising a substrate nucleic acid, a topoisomerase, and a candidate compound; and
 - (b) assaying for intramolecular ligation of the substrate nucleic acid to form a hairpin, a circular nucleic acid, or a multimer of the substrate nucleic acid.

Remarks

Applicants have carefully reviewed and considered the Office Action mailed June 12, 2002, and the references cited therewith. Reconsideration is respectfully requested. Claims 1 and 20 are amended. Claims 22-23 are added. Therefore, claims 1-16, 20, and 22-23 are pending in the application. Support for the formation of a nucleic acid religation product or a covalently linked product, as recited in claims 1 and 20, is found within the specification (e.g., page 6, lines 17-10; page 12, lines 19-21; Figure 2). Support for a religation nucleic acid comprising a 5'-OH recited in claim 20 is also found within the specification (e.g., Figures 2 and 4). Applicants submit that no new matter has been added to the application. Support for new